

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53701-2658

Wisconsin Building Products Evaluation

Material

Bayseal™ CC and Bayseal™ PP
Spray Applied Polyurethane Insulation

Manufacturer

Bayer Material Science LLC
3010 W. Lincoln Street
Phoenix, AR 85009

SCOPE OF EVALUATION

GENERAL: This report evaluates the use of Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation, manufactured by Bayer Material Science LLC. Bayseal™ CC and Bayseal™ closed-cell rigid spray polyurethane insulation was evaluated as a foamed-in-place insulation for use in brick and concrete block cavities, pre-cast hollow core panels and planks, and wood frame, in new and existing construction.

Bayseal™ CC and Bayseal™ foamed-in-place polyurethane insulation was evaluated in accordance with the fire safety requirements for foam plastic, and thermal performance, for the codes listed below.

The **Comm** code requirements below in accordance with the current **Wisconsin Uniform Dwelling Code for 1 & 2 family dwellings:**

- **Foam Plastic Material:** Bayseal™ CC and Bayseal™ PP was evaluated under the foam plastic requirements in accordance with **s. Comm 21.11**.
- **Materials, Equipment and Systems Installation:** Bayseal™ CC and Bayseal™ PP was evaluated under the energy conservation requirements of **s. Comm 22.03 (2) 4**.
- **Vapor Retarder:** Bayseal™ CC and Bayseal™ PP was evaluated under the foam plastic requirements in accordance with **s. Comm 22.22 (1)(b)**.

The **IBC** requirements below in accordance with the current **Wisconsin 2006 Amended ICC Code:**

- **Foam Plastic Material:** Bayseal™ CC and Bayseal™ PP was evaluated under the foam plastic requirements in accordance with **ss. IBC 2603.1, 2603.2, 2603.3, 2603.4, 2603.4.1.7 and s. 2603.4.1.9**.
- **Materials, Equipment and Systems Installation:** Bayseal™ CC and Bayseal™ PP was evaluated under the energy conservation requirements of **s. Comm 63.0102 (2) (b) c., 3., 4. and s. IECC 102.1.1.1**.
- **Moisture Control:** Bayseal™ CC and Bayseal™ PP was evaluated under the energy conservation requirements of **s. IECC 502.5**.

DESCRIPTION AND USE

Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation, are medium density, rigid, spray-applied foam plastic insulation materials. It is not a vapor-permeable product. Less than 5 minutes of curing time is needed. After curing, Bayseal™ CC and Bayseal™ PP remains rigid.

TESTS AND RESULTS

The tests and results listed below cover the **Wisconsin Uniform Dwelling Code (UDC), (for 1- and 2-family dwellings)** and the current **Wisconsin Amended 2006 IBC Code** requirements:

Testing was submitted in accordance with ASTM E84. The ASTM E 84 test results showed a flame spread rating of less than 20 and a smoke developed rating of less than 400, when installed at a maximum thickness of 4 inches and a nominal density of 2.0 pounds per cubic foot.

Testing in accordance with ASTM C518 was submitted. The results show for a 1-inch thickness, Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation has an R-value of 6.87, and for a thickness of 3.50 inches, an R-value of 24.12.

Testing in accordance with ASTM E96 was submitted. The results show Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation has a permeance rating of 1 perm (5.7×10^{-11} kg/Pa · s · m²) or less.

Data is on file with the department.

LIMITATIONS OF APPROVAL

The (UDC), limitations below are in accordance with the current Wisconsin Administrative Uniform Dwelling Code:

- Bayseal™ CC and Bayseal™ PP shall be separated from the building interior with a thermal barrier as required by **s. Comm 21.11 (1)**.
- A vapor retarder shall be provided as required under **ss. Comm 22.05 (1) and 22.11 (1)**.
- **Installation:** Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation shall be installed as required by **s. Comm 22.03(3)**.
- **Dwelling Envelope Insulation:** Bayseal™ CC and Bayseal™ PP two component, closed-cell spray applied polyurethane foam insulation shall be installed as required by **s. Comm 22.03(4)**.

The IBC limitations below are in accordance with of the Wisconsin Amended ICC 2000 Code:

- The Bayseal™ CC and Bayseal™ PP shall be separated from the building interior with a thermal barrier as required by **s. 2603.4**.

The limitations below are in accordance with **all** the codes listed above:

- The maximum thickness of applied material shall not exceed 4 inches in all walls and cathedral ceiling assemblies.
- Bayseal™ CC and Bayseal™ PP shall be protected from the weather after application.
- Bayseal™ CC and Bayseal™ PP foam application shall be done only by factory-certified contractors.

This approval will be valid through December 31, 2013, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:

Approval Date: March 10, 2009

By: _____

Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau

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